

# **KAWAI**

*Digital  
Piano*

**CA840  
CA640  
CA440**

*Owner's Manual*

# SAVE THESE INSTRUCTIONS



## WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

**AVIS : RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR.**

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).  
NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**CAUTION:** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

**ATTENTION:** POUR EVITER LES CHOCES ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

## FCC Information

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## Canadian Radio Interference Regulations

This instrument has been certified to comply with the limits for a class B digital apparatus, pursuant to the Radio Interference Regulations, C.R.C., c. 1374.

This digital piano should be not commercial use but household use.

# IMPORTANT SAFETY INSTRUCTIONS

**WARNING** - when using electric products, basic precautions should always be followed, including the following:

1. Read all the instructions before using the product.
2. To reduce the risk of injury, close supervision is necessary when a product is used near children.
3. Do not use this product near water - for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, or the like.
4. Do not touch the power plug with wet hands. There is a risk of electrical shock. Treat the power cord with care as well. Stepping on or tripping over it can break or shortcircuit the wire inside.
5. This product should be used only with a cart or stand that is recommended by the manufacturer.
6. This product, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
7. The product should be located so that its location or position does not interfere with its proper ventilation.
8. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
9. Keep the instrument away from electrical motors, neon signs, fluorescent light fixtures, and other sources of electrical noises.
10. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
11. This product may be equipped with a polarized line plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.
12. Always turn the power off when the instrument is not in use. The power supply cord of the product should be unplugged from the outlet when left unused for a long period of time.
13. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
14. The product should be serviced by qualified service personnel when:
  - A. The power supply cord or the plug has been damaged.
  - B. Objects have fallen, or liquid has been spilled into the product.
  - C. The product has been exposed to rain.
  - D. The product does not appear to operate normally or exhibits a marked change in performance.
  - E. The product has been dropped, or the enclosure damaged.
15. Do not attempt to service the product beyond that described in the user -maintenance instructions. All other servicing should be referred to qualified service personnel.

## Thank you for purchasing a KAWAI Digital Piano!

The Kawai digital piano is a revolutionary new keyboard instrument that combines the latest in electronic advances with traditional craftsmanship inherited from Kawai's many years of experience in building fine pianos. Its keyboard provides the touch response and full dynamic range required for a superb performance on the piano, harpsichord, organ, and other instrument presets. Moreover, the reverb effect gives you even deeper resonance. Industry-Standard MIDI (Musical Instrument Digital Interface) jacks are included which allow you to play other electronic instruments at the same time – opening a whole new world of musical possibilities.

This Owner's Manual contains valuable information that will help you make full use of this instrument's many capabilities. Read it carefully and keep it handy for further reference.

## Table of Contents

■ Basic Controls .....	1
■ Let's Play .....	4
1. Basic Operations .....	4
2. Dual and Split .....	5
3. Selecting the Touch Curve .....	7
4. Playing the Demo Songs .....	8
5. Metronome .....	9
■ Let's Record .....	11
1. Simple recording .....	11
2. Easy playback .....	12
3. Recording another song .....	13
4. Playing back the song .....	14
5. Recording the left and right hand parts separately .....	15
6. Playing back the left and right hand parts separately .....	17
7. Deleting unnecessary songs .....	18
8. Concert Magic .....	19
(A) Selecting a Song in Concert Magic Mode .....	19
(B) Listening to the Selected Song .....	19
(C) Performing the Selected Song .....	20
(D) Concert Magic Song Arrangement Types .....	20
(E) Playing Concert Magic Songs in Demo Mode .....	21
■ Advanced Features .....	22
1. Programming Mode .....	22
2. Changing the Split Point .....	23
3. Tuning .....	24
4. Temperaments .....	25
5. Setting the metronome volume .....	27
■ MIDI Interface .....	28
1. What's MIDI ? .....	28
2. Connections .....	29
3. MIDI Implementation .....	31
4. MIDI Settings .....	32
(A) Setting the channel .....	32
(B) Sending program number (timbre code) and MIDI exclusive data .....	33
(C) Turning MULTI TIMBRE on and off .....	36
(D) Turning on and off individual sounds when using MULTI TIMBRE 2 mode .....	37
(E) Local Control .....	39
(F) One Touch Local Control OFF .....	39
■ MIDI Exclusive Date Format .....	40
1. Date format .....	40
2. Date structure .....	40
■ Specifications .....	41
■ MIDI Implementation Chart .....	42

# Basic Controls

## 1 Front Panel

DIGITAL PIANO 840



①

②

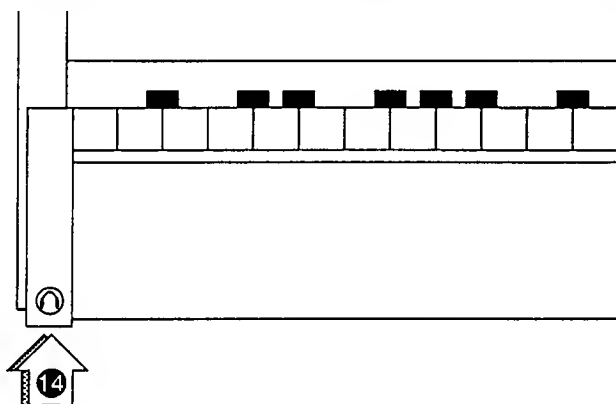
③

④

⑤

⑥

⑦



### ① VOLUME

Move the volume slider to the right to increase the instrument's volume.

Move the slider to the left to decrease the volume.

### ② BRILLIANCE control (CA840 only)

This slider controls the brilliance, or clarity, of the sound. Shifting it to the left produces a rich, mellow sound; shifting it to the right, a bright, clear sound.

The center position corresponds to the instrument's normal tone.

### ③ TRANSPOSE control

Shifting the slider to the right raises the piano's key (C - C<sup>#</sup> - D - E<sup>b</sup> - E - F).

Shifting it to the left lowers the key (C - B - B<sup>b</sup> - A - A<sup>b</sup> - G - F<sup>#</sup>).

You can therefore play the music as written - in C major, for example - and have the instrument transpose the output to a higher or lower key to match your voice.

### ④ TOUCH CURVE selector

Use these buttons to select the touch curve.

See p. 7 for more information on the touch curve.

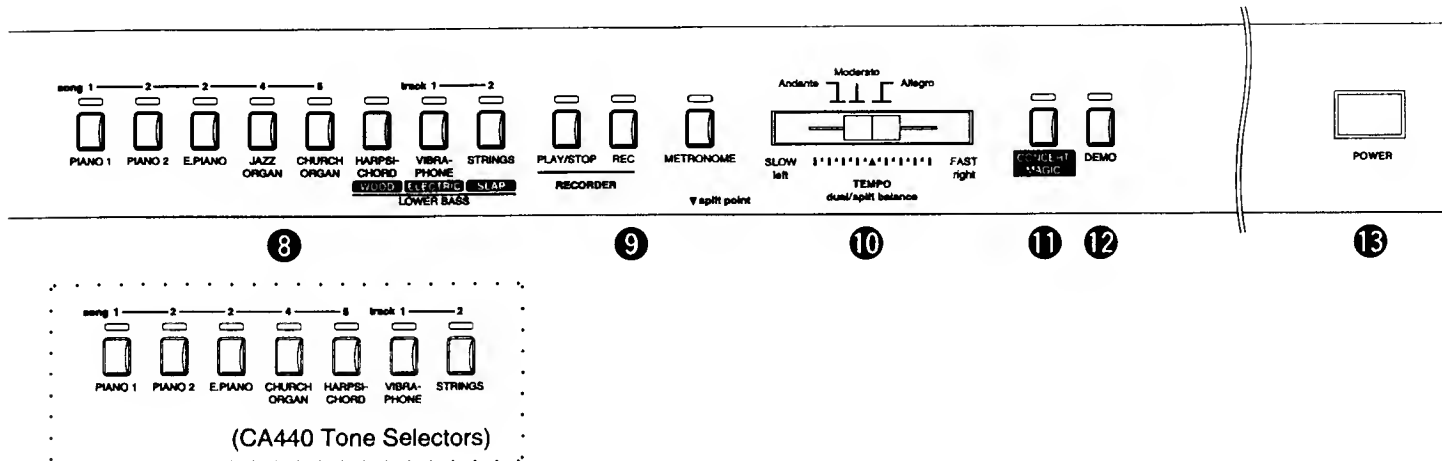
### ⑤ REVERB buttons

These add REVERB (echo) effect to the sound for greater beauty.

### ⑥ CHORUS

Enhances the sound with the calming depth of a chorus.

*The CHORUS effect is automatically applied when you choose the E.PIANO, JAZZ ORGAN, CHURCH ORGAN, VIBRAPHONE, or STRINGS preset sounds.*



### 7 SPLIT button (CA840/640 only)

Pressing this button splits the keyboard into an upper and lower half, each with different tone colors. When the function is first activated, the keyboard is split at the point marked on the front panel, but this point is changeable. (For the procedure, see p. 23)

### 8 TONE SELECTORS

Select the desired instrument by pressing the appropriate button.

Use these buttons for song selection or track selection when using with RECORDER.

### 9 RECORDER

Use these buttons to record and playback a song. (For the procedure, see p. 11)

### 10 TEMPO Control, DUAL/SPLIT BALANCE Control

This slider controls the relative loudness of the two voices used in the SPLIT and DUAL modes. Shifting it to the right in the SPLIT mode makes the UPPER keyboard louder. For the DUAL mode, it is the rightmost preset of the pair that becomes louder. (This slider controls only DUAL balance on the CA440.)

Use this slider to set the tempo of the metronome or recorder when recording and playing back.

In Listen mode of Concert Magic, this slider controls the tempo of the song.

### 11 CONCERT MAGIC

This button turns CONCERT MAGIC function on and off.

CONCERT MAGIC lets you perform preprogrammed music with just striking a key. (For the procedure, see p. 19)

### 12 DEMO

Use this button to play three demo songs stored in the piano's internal memory.

See p. 8 for more information on playing the demo songs.

### 13 POWER

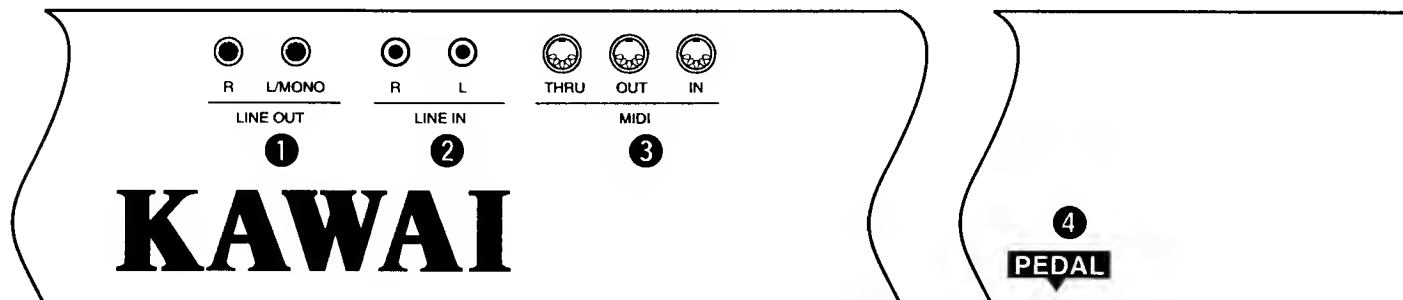
This switch turns the instrument on and off. Be sure to turn off the instrument when finished playing.

### 14 HEADPHONE jacks

These jacks are for headphones sold separately. (Kawai's optional headphones: SH-2, SH-5).

## 2

## Rear Panel



### ① LINE OUT

These jacks provide stereo output to amplifiers, stereo systems, tape recorders, or similar equipment. Use the L/MONO jack when using only one output.

### ② LINE IN

These RCA pin jacks connect two channels of output from other electronic instruments or audio equipments to the piano's speakers.

*This input bypasses the piano's VOLUME control. To adjust the balance, you must use the output volume controls on the individual instruments.*

### ③ MIDI

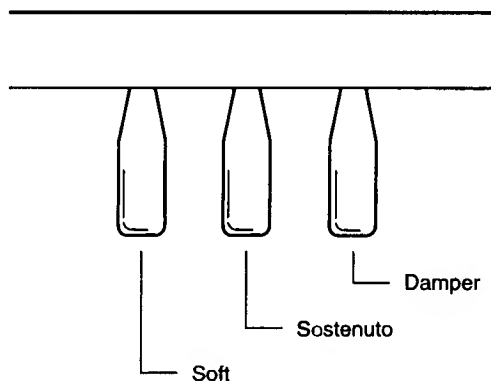
These jacks allow communication with other gear equipped with MIDI.

### ④ PEDAL jack

This jack is used to activate the damper, the sostenuto and soft pedals that are built in the stand.

### • The pedals

From right to left, the pedals are the damper pedal, sostenuto pedal, and the soft pedal.



**Damper pedal:** Pressing this pedal sustains the sound even after removing the hands from the keyboard.

**Sostenuto pedal:** Depressing this pedal after pressing the keyboard and before releasing the keys sustains the sound of only the keys just played.

**Soft pedal:** Pressing this pedal softens the sound, and also reduces its volume.



# Let's Play

1

## Basic operations

**Step 1** Turn on the power.



**Step 2** Adjust the volume.



Play a note on the keyboard and adjust the volume (Moving the slider to the right raises the volume; moving it to the left lowers it).

**Step 3** Choose the tone.

Pressing a **TONE SELECTOR** button automatically changes the tone of the piano. The LED above it lights to indicate which tone is currently in effect.

**PIANO1** is automatically selected when the power is turned on.



**Step 4** Play.

Experiment with the various tone colors to acquaint yourself with the sounds that are available.

**Note**

*Up to 32 keys can be played simultaneously (32 note polyphonic).*

**Step 5**

Adjust Brilliance (CA840 only)

Change the clarity of the sound to suit your taste.

**Step 6**

Add an effect.

There are CHORUS and three REVERB effects available.

CHORUS : The sound is enhanced with the depth of a chorus.

ROOM : Gives a soft REVERB effect simulating play in a room.

STAGE : Gives a REVERB effect simulating play on stage.

HALL : Gives a deep REVERB effect simulating play in a large concert hall.

**Note**

*The CHORUS effect halves the number of simultaneous voices available to sixteen (16 note polyphonic).*



## 2

# DUAL and SPLIT

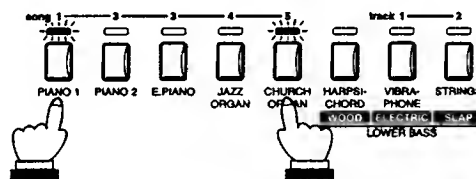
DUAL and SPLIT modes allow you to combine two tones.

**DUAL MODE:** You can combine two tones in a layer with this mode, creating sounds and effects impossible with just a single tone.

**SPLIT MODE:** In this mode it is possible to divide the keyboard at the SPLIT POINT into upper and lower halves, each with a different tone, for ensemble play.

## A. DUAL operation

**Step 1** Simultaneously press two **TONE SELECTOR** buttons to achieve tone colors at once.  
<Example>



### Note

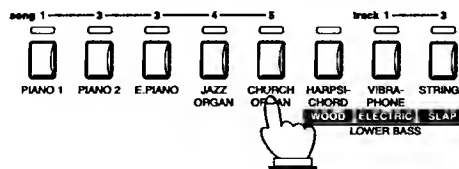
- ★ Pressing such a combination also halves the number of simultaneous voices available to sixteen (16 note polyphonic).
- ★ Pressing another pair changes the combination.
- ★ To cancel and return to normal operation, press a single tone selector button.

## B. SPLIT operation (CA840 & CA640 only)

**Step 1** Press the **SPLIT** button so that the LED above it lights.



**Step 2** Press a **TONE SELECTOR** to change the UPPER tone.

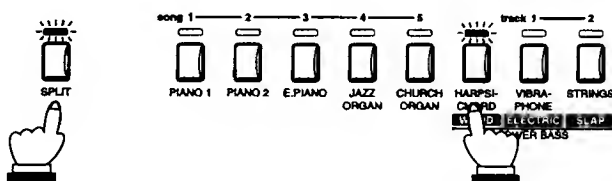


**Step 3**

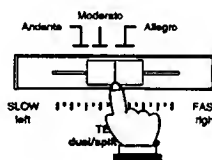
Hold down the **SPLIT** button and press a **TONE SELECTOR** to change the LOWER timbre. The selected timbre becomes the LOWER tone.

The LED for the UPPER keyboard timbre glows continuously; the one for the LOWER keyboard flashes.

For the bass sounds, one of the three buttons on the right end of the **TONE SELECTOR** will select the preset bass sounds, **WOOD BASS**, **ELECTRIC BASS**, and **SLAP BASS**. Pushing one of these three buttons once again while holding down the **SPLIT** button will select the preset sounds whose names are written below the button - **HARPSICHORD**, **VIBRAPHONE**, and **STRINGS**.

**Step 4**

Adjust the relative loudness of the two tone colors with the **DUAL/SPLIT BALANCE** control.

**Step 5**

To cancel SPLIT MODE....

Push the **SPLIT** button again. The LED above it will turn off and the keyboard will return to normal play mode.

**Note**

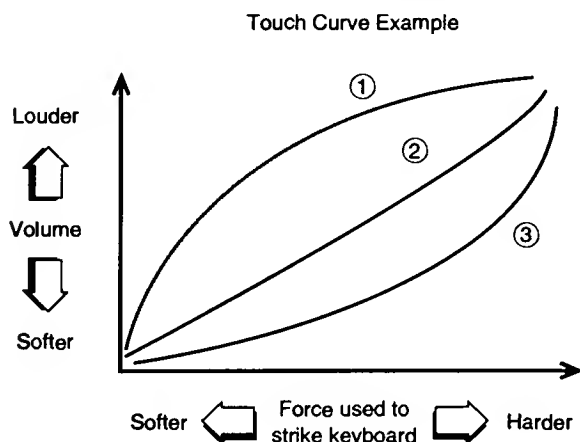
- ★ When the function is first activated, the keyboard is split at the point marked with a triangle on the front panel, and LOWER keyboard assumes the WOOD BASS tone.
- ★ The LOWER tone specification remains in effect until the power is removed or the tone is changed.
- ★ Switching from DUAL operation to SPLIT operation makes the UPPER keyboard assume the right tone and the LOWER assume the WOOD BASS or the tone you chose for the LOWER tone.
- ★ You must turn the SPLIT operation off before you can return to DUAL operation.
- ★ To change the SPLIT point, see p. 23 "Changing the SPLIT POINT".

### 3

## Selecting the Touch Curve

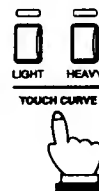
When playing a piano, the volume of the sound produced increases in direct relation to how hard the key is struck. "Touch Curve" is the expression used to describe the relationship between the volume and the strength with which the keyboard is struck.

You can select from three different touch curves with this keyboard.



- ① **Light:** For those still developing finger strength, such as a child, a louder sound is emitted even when played with a soft touch.
- ② **Normal:** Volume changes accordingly with normal touch.
- ③ **Heavy:** Perfect for those with strong fingers or for practicing with a hard touch.

**Step 1** Press either the **LIGHT** or **HEAVY** button to select the touch curve.



The LED of the selected touch curve will light.  
When neither LED is lit, the Normal setting is selected.

**Step 2** When you want to return the setting to "Normal", press the button of the currently selected touch curve once again and its LED will turn off.

#### Note

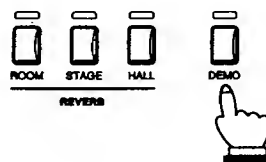
**The default setting is "Normal" when the power to the keyboard is turned on.**

## 4

## Playing the Demo Songs

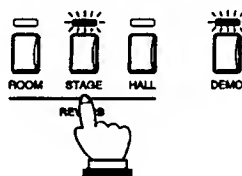
There are three demo songs stored in the keyboard's internal memory. Using the following method, you can enjoy listening to an automated recital of these songs.

**Step 1** Press the **DEMO** button.



Three songs will play automatically one after another and repeat until stopped.

**Step 2** By pressing the **ROOM**, **STAGE**, or **HALL** button, you can choose the specific demo song (demo song 1 ~ 3) you wish to start with.



**Step 3** To stop the demo concert.....  
Push the **DEMO** button once again.  
Its LED will turn off and the demo song will stop.

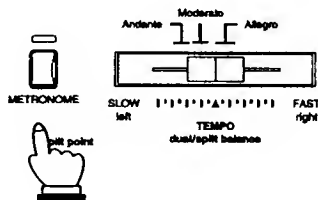
**Note**

*You cannot change the reverb while the demo songs are playing.*

## 5 Metronome

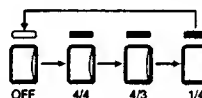
Now let's practice using the metronome.

**Step 1** Press the **METRONOME** button once.

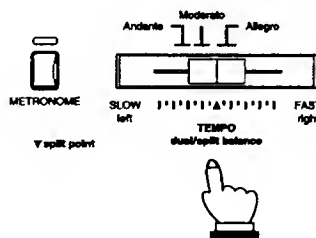


The metronome counts in four-four time.

**Press the *METRONOME* button once again to count in three-four time and twice for one-four time. Press the *METRONOME* button once again to turn it off.**



**Step 2** Adjust the tempo.



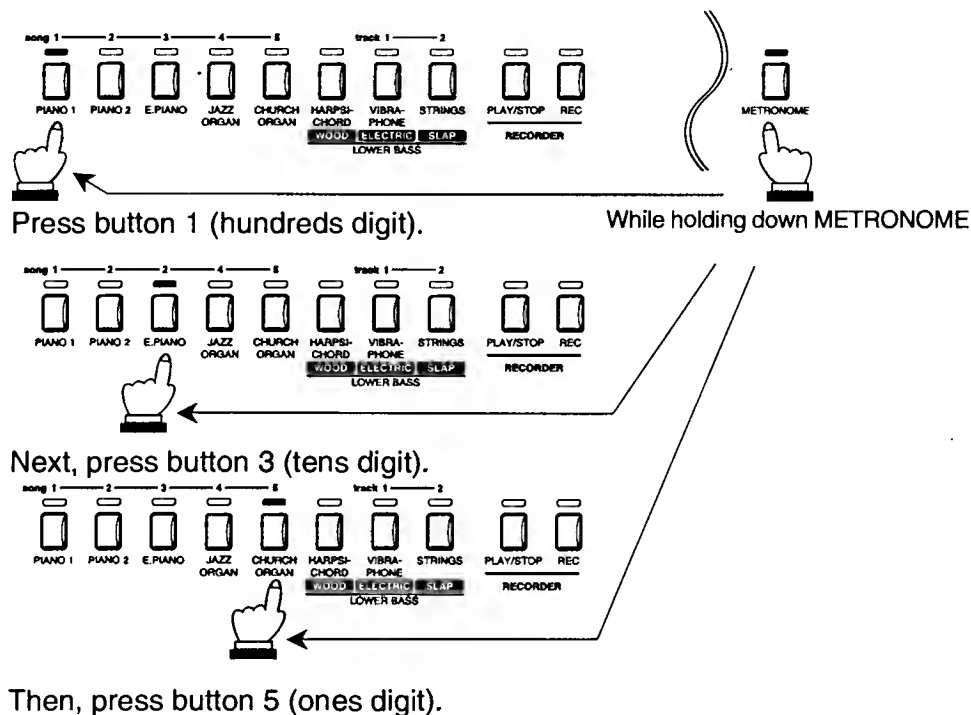
Move the tempo slider to the right or left to select the desired tempo while listening to the metronome counts.

**To set the tempo using numbers (for example, ♩ = 135), see page 10.**

Setting the tempo using numbers.

You can set the tempo using numbers (to set the metronome precisely ♩=135) as follows:

**Step 1** Holding down the **METRONOME** button, press the buttons in order with the left hand as shown in the illustration.



Press the **PIANO 1** (1), **E. PIANO** (3) and **CHURCH ORGAN** (5) buttons one after another using the left hand.

**Note**

*On the CA440, values are differently assigned to the buttons as shown below.*

	CHORUS	PIANO 1	PIANO 2	E.PIANO	CHURCH ORGAN	HARPSI-CHORD	VIBRA-PHONE	STRINGS	PLAY/STOP	REC
Value	0	1	2	3	4	5	6	7	8	9

**Step 2** The tempo is now set to ♩=135.

*The tempo can be set anywhere between 40 and 200 in quarter note (♩) increments.*

*The tempo slider is not activated when setting the tempo with numbers. However, if you shift the slider after setting, the tempo will follow the slider selection.*



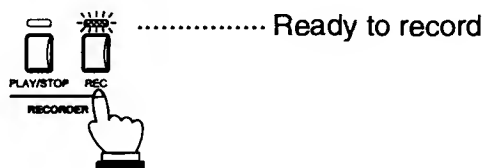
# Let's Record

1

## Simple recording

This piano has a record function to record what is played. You can use this function to check your piano practice or playing.

**Step 1** Press the **REC** button.



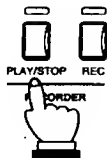
**Step 2** Play the piano.



Playing the piano will automatically start the recording.  
**REC** and **PLAY/STOP** LEDs will light.

*You can also start recording by pressing the **PLAY/STOP** button after step 1.*

**Step 3** Press the **PLAY/STOP** button after you have finished playing.

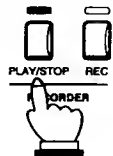


The **REC** and **PLAY/STOP** LEDs will turn off and recording will stop.

## 2 Easy playback

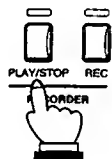
Let's play back the recording.

**Step 1** Press the **PLAY/STOP** button.



The song will be played back in the same tone it was recorded in.

**Step 2** Press the **PLAY/STOP** button once again to stop the playback.



*Playback will automatically stop when playback is finished.*

*If the **METRONOME** is activated before recording, you can record what you play in time with the metronome counts.  
(The metronome counts are not recorded.)*

*Making another recording will delete the song you previously recorded.  
To keep the recorded song, record the song following the procedures on page 13.*

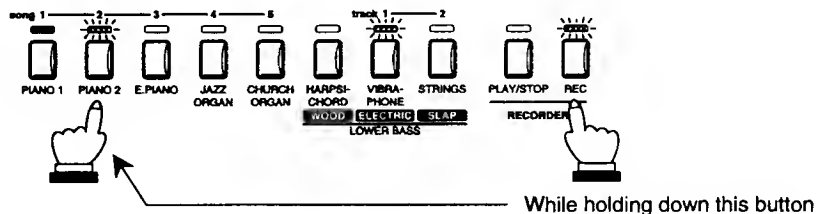


## 3

## Recording another song

The memory of this piano can record and store a maximum of five songs. Record the second song.

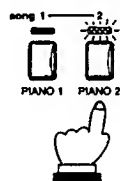
**Step 1** Holding down the **REC** button, press the **PIANO 2** (SONG 2) button.



SONG 2 will be selected and piano will be ready to record.

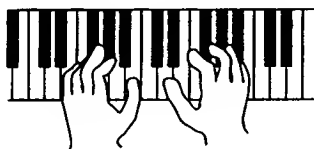
*The recording procedures explained on page 12 record what you play in SONG 1. The song recorded in SONG 1 can be kept by recording the second song in SONG 2.*

The LED of the song where the song is recorded will be lit.



The LED of the song selected to record (play back) will flash.

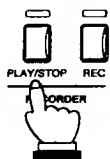
**Step 2** Play the piano.



Playing the piano will automatically start the recording.  
**REC** and **PLAY/STOP** LEDs will light.

*Recording can also be started by pressing the **PLAY/STOP** button after step 1.*

**Step 3** Press the **PLAY/STOP** button after you finish playing.



The **REC** and **PLAY/STOP** LEDs will be turned off and the recording will stop.

*You can record a third, fourth and fifth song in SONG 3, 4 and 5. Recording a song in an area where a song has already been recorded, will delete the previously recorded song.*

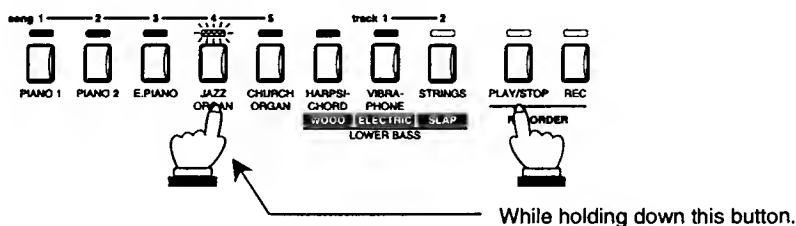
## 4

## Playing back the song

This function enables you to select and play back a song you want to hear from all of the recorded songs. The following explains the case where a song has been recorded in all of the areas SONG 1 or 5.

### Step 1

Press the SONG button where the song you want to hear has been recorded, at the same time holding down the **PLAY/STOP** button.

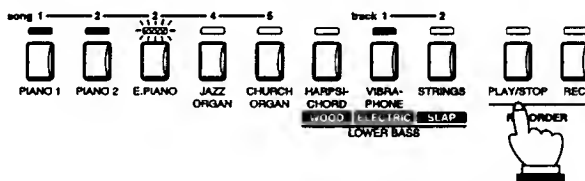


For example, pressing the JAZZ ORGAN (SONG 4) button will flash the LED to show that SONG 4 is selected.

### Step 2

Releasing both buttons will play back SONG 4.

### Relationship between the SONG status and its corresponding LED



While holding down this switch.

*In the case above,*

**SONG 1, 2 (LED lights).....Area in which the song has been recorded.**

**SONG 3 (LED flashes).....Area whose stored song has been selected to play back or record over.**

**SONG 4, 5 (LED turns off).....Area in which a song is not recorded.**

**TRACK 1 and 2 LEDs indicate the part status of the song being selected (SONG 3).**

**TRACK 1 (LED lights or flashes) .. Part of the SONG 3 which has been recorded.**

**TRACK 2 (LED turns off).....Part of the song that has not been recorded or played back.**

## 5

## Recording the left and right hand parts separately

This piano can record the parts played by the left or right hand and play back these parts separately or simultaneously.

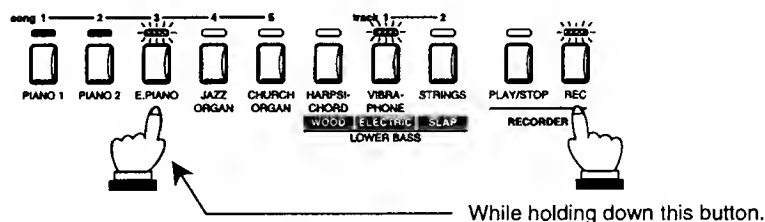
This function can be enjoyed in different ways. For example, you can practice the right hand part of the song while playing back the recorded left hand part or record the melody part of the song while playing back previously recorded accompaniment.

Here, let's try to record the left and right hand parts respectively in SONG 3.

### Step 1

Let's play the left hand part in Track 1.

Holding down the **REC** button, press the **E. PIANO** (SONG 3) button.



TRACK 1 of SONG 3 will be selected and the piano will be ready to record.

### Step 2

Play the piano with the left hand.



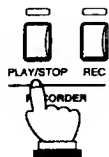
Playing the piano will automatically start the recording.

**REC** and **PLAY/STOP** LEDs will light.

**Recording will start by pressing the PLAY/STOP button after step 1.**

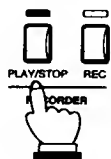
### Step 3

Press the **PLAY/STOP** button after you finished playing.



The **REC** and **PLAY/STOP** LEDs will be turned off and the recording will stop.

- Step 4** Now play back the left hand part.  
Press the **PLAY/STOP** button.



The left hand part you have recorded (TRACK 1 of SONG 3) will be played back.  
You can practice the right hand part to accompany the recorded part.

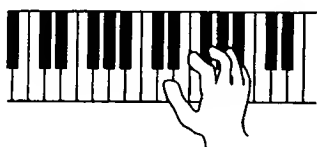
- Step 5** Let's record the right hand part while listening to the left hand part.  
Holding down the **REC** button, press the **STRINGS** (TRACK 2) button.



While holding down this button.

The TRACK 1 LED will light (ready to play back) and the TRACK 2 LED will flash to indicate the track is ready to record.

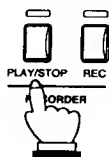
- Step 6** Play the piano with the right hand.



Pressing the keyboard will start playing back the recorded left hand part (TRACK 1) and playing with the right hand will be recorded.  
**REC** and **PLAY/STOP** LEDs will light.

**You can start recording by pressing the PLAY/STOP button after step 5.**

- Step 7** Press the **PLAY/STOP** button after you have finished.



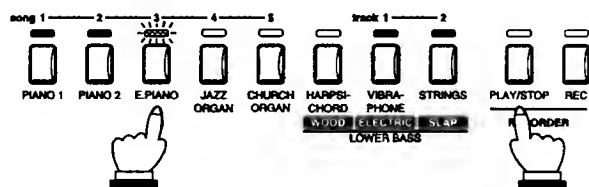
The **REC** and **PLAY/STOP** LEDs will be turned off and the recording will stop.

# 6

## Playing back the left and right hand parts separately

If you succeeded in recording the left and right parts explained on page 16, it will be possible to play back the left and right parts by themselves or together. The following will show an example of how to play back only left hand part.

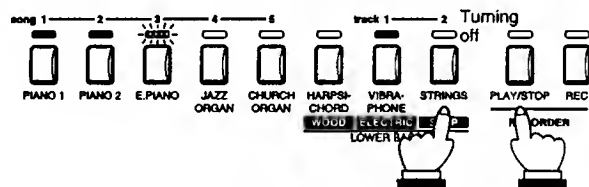
**Step 1** Select the SONG while pressing the **PLAY/STOP** button.



While holding down this button.

In the example above, SONG 3 is selected.

**Step 2** Holding down the **PLAY/STOP** button, press the **STRINGS** button.

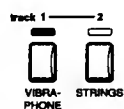


The right hand part LED (TRACK 2) will turn off and only the left hand part (TRACK 1) will be ready to be played back.

**The LED will light by pressing the STRINGS button once again.**

**Step 3** Releasing both switches will play back only the left hand part (TRACK 1).

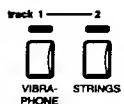
**To play back only the right hand part, turn off the LED for the left hand part (TRACK 1) by pressing the VIBRAPHONE button as step 2. If you play back with both LEDs of TRACK 1 and 2 lit, then both parts will be played back at the same time.**



.....Play back the left hand part (TRACK 1)



.....Play back the right hand part (TRACK 2)

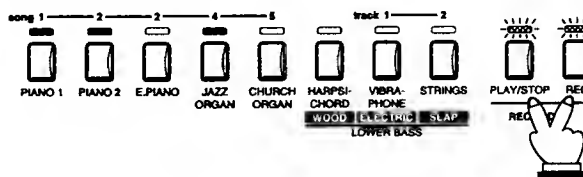


.....Play back both parts simultaneously

## Deleting unnecessary songs

This function allows you to delete the songs that were not recorded correctly or the songs you do not want to listen to any more.

**Step 1** Simultaneously hold down the **PLAY/STOP** button and the **REC** button.

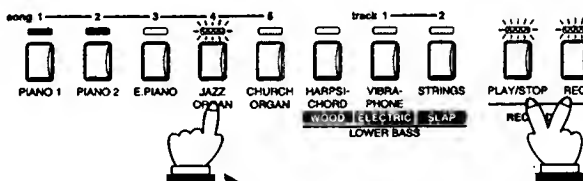


While holding down these buttons

LED of the area where the song has been recorded will light.

In the example above, the songs have been stored in SONG 1, 2 and 4.

**Step 2** Press the SONG button you wish to delete while holding down the buttons in step 1.



While holding down these buttons

**To cancel deletion, press the SONG button again so that the LED lights before releasing the PLAY/STOP and REC buttons.**

**Step 3** Releasing the buttons will delete the specified song.

**To delete more than one song, repeat steps 1 to 3.**

**The total memory capacity of the recorder is approximately 5000 notes. Recording will stop if the memory becomes full during recording. However, the play recorded before the interruption will be retained. The recorder memory will be retained after turning off the power switch. However, memory may be lost if the power remains off for more than 10 days. To delete all the recorded songs (reset), turn the power off while holding down the PLAY/STOP and REC buttons.**

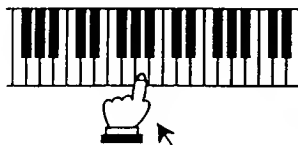
The Concert Magic Feature allows you to listen to or perform 88 preprogrammed songs, even if you've never taken a piano lesson in your life.

## A. Selecting a song in Concert Magic mode

**Step 1** Press and hold the Concert Magic button.



**Step 2** While continuing to hold down the Concert Magic Button, press any one of the 88 black or white keys on your piano keyboard. If you are using the Concert Magic feature for the first time, we suggest that you select key #1, which is the lowest note on your piano keyboard.



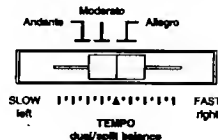
While holding down this button.

## B. Listening to the Selected Song

**Step 1** Press the **PLAY/STOP** button. You will hear a familiar song.



**Step 2** Adjust the speed or tempo of the song while it is playing with the **DUAL/SPLIT** balance control.



**Step 3** Stop playback of the song by pressing the **PLAY/STOP** button.



### Note

*To restart the currently selected song from the beginning, you must reselect the song by repeating Steps 1 and 2 from Section A.*

---

## C. Performing the Selected Song

- Step 1** Tap out the rhythm of the selected song on any one of the 88 black or white keys on your piano keyboard. As you tap harder, the notes will get louder; as you tap softer, the notes will get quieter. As you tap faster, the notes speed up; as you tap slower, they will slow down correspondingly, just like regular piano playing!



- Step 2** Adjust the relative loudness of the melody notes and accompaniment notes with the **DUAL/SPLIT** balance control.

**Note**

*To rewind the currently selected song and perform it from the beginning, you must reselect the song by repeating Steps 1 and 2 from Section A.*

## D. Concert Magic Song Arrangement Types

Each of the 88 Concert Magic songs is arranged in one of three types.

### 1. Easy Beat

These are the easiest songs to play. To perform them, simply tap out a steady beat on any key on your piano keyboard. To select an Easy Beat song, press and hold the Concert Magic button while simultaneously pressing any black or white key from #1 to #13.

### 2. Melody Play

These songs are also quite easy to play, especially if they are familiar to you. To perform them, tap out the rhythm of the melody on any one of the keys on your piano keyboard. To select a Melody Play song, press and hold the Concert Magic button while simultaneously pressing any black or white key from #14 to #43.

### 3. Skillful

These songs range in difficulty from moderately difficult to difficult. To perform them, tap out the rhythm of both the melody and the accompaniment notes on any of the keys on your piano keyboard. It may take some practice to get them just right. A good way to learn these songs is to listen to them first, and then try to tap out the rhythms that you hear. To select a Skillful song, press and hold the Concert Magic button while simultaneously pressing any black or white key from #44 to #88.

**Note**

*When performing fast songs on Concert Magic, it is sometimes easier to tap two different keys with two fingers alternating. This allows you to play twice as fast as you can using only one finger on one key.*



---

## E. Playing Concert Magic Songs in Demo Mode

Each Concert Magic song falls into one of seven different categories:

1. American Classics
2. Children's Songs
3. Classical Selections
4. Hymns & Christmas Songs
5. International Songs
6. Patriotic Songs
7. Special Occasions

In Demo Mode, Concert Magic will continuously play all of the songs in a selected category. To select a category of songs for continuous playback, do the following:

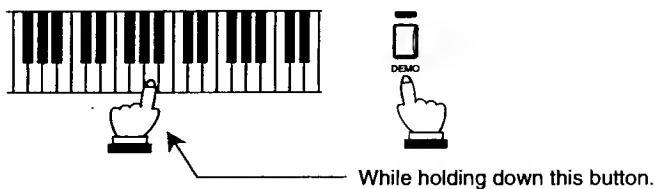
**Step 1** Press the Concert Magic Button and release. Make sure that the red light is on.



**Step 2** Press and hold the Demo button.



**Step 3** While continuing to hold down the Demo Button, press the black or white key on your piano keyboard that corresponds to a song in the category of music you'd like to hear. Concert Magic will begin to play all of the songs in the selected category, beginning with the song you selected.



# Advanced Features

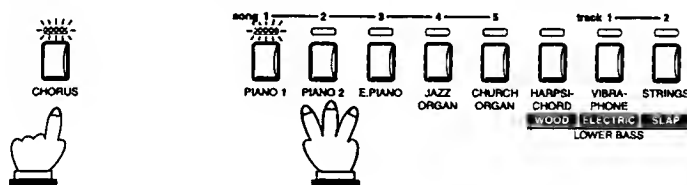
## 1 Programming Mode

The programming mode allows you to change the keyboard's tuning, and temperament, and utilize the various MIDI capabilities. These programming functions are performed using the panel buttons and keyboard, so please try them after reading and understanding the programming instructions completely.

### A. Entering the programming mode

**Step 1** Press the **CHORUS** button.

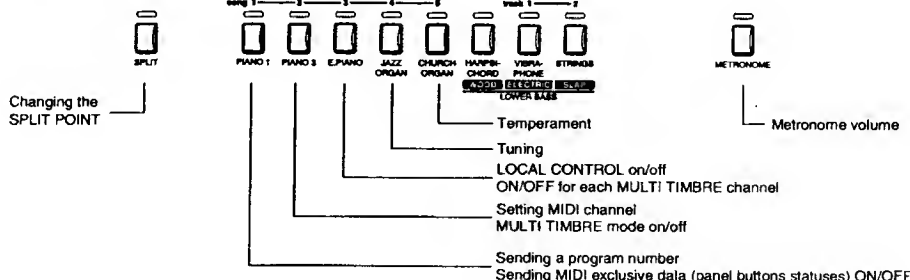
**Step 2** Holding down the **CHORUS** button, press the first three tone selector buttons (**PIANO 1**, **PIANO 2**, and **E.PIANO**).



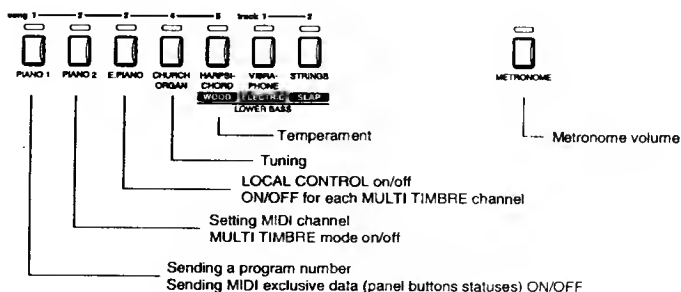
**Step 3** The LEDs above the **CHORUS** and **PIANO 1** buttons should then start flashing to indicate that the piano is in the programming mode. In this mode, striking the keyboard produces no sound.

**Step 4** Press an appropriate button to select the desired programming mode. The correspondence between buttons and 7 types of programming mode is as below.

#### CA840 and CA640

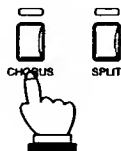


#### CA440



## B. Leaving the programming mode

**Step 1** Press the **CHORUS** button.



**Step 2** The flashing will stop, and you will return to the tone in effect when you entered the programming mode.

**Note**

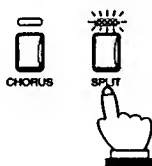
*You can also continue into another programming mode by pressing another **TONE SELECTOR** without pressing the **CHORUS** button.*

## 2

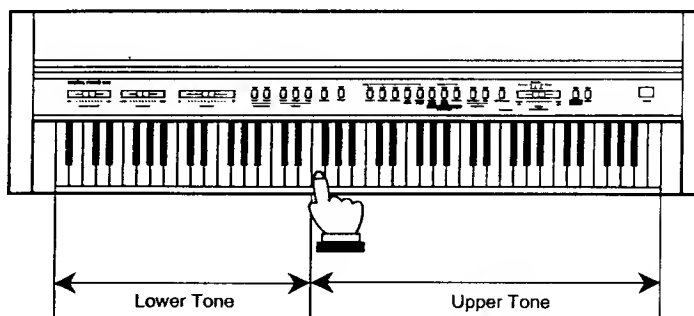
## Changing the SPLIT Point (CA840 & CA640 only)

**Step 1** Make sure that the piano is in the programming mode.

**Step 2** Press the **SPLIT** button so that it flashes to indicate that the piano is waiting for a **SPLIT** point specification.



**Step 3** Press the key corresponding to the lowest note for the desired **UPPER** range. For example, pressing the lowest key on the keyboard would make the entire keyboard as the **UPPER**.

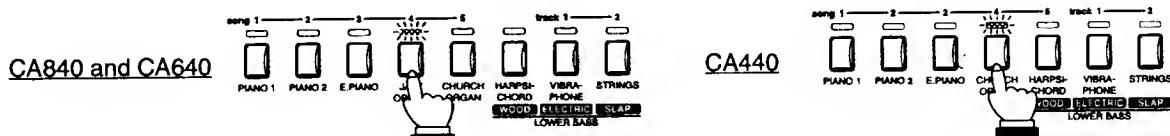


**Step 4** Leave the programming mode by pressing the **CHORUS** button.

# Tuning

**Step 1** Make sure that the piano is in the programming mode.

**Step 2** Press the **JAZZ ORGAN** button (**CHURCH ORGAN** on the CA440) so that it flashes to indicate that the piano is ready to be tuned.

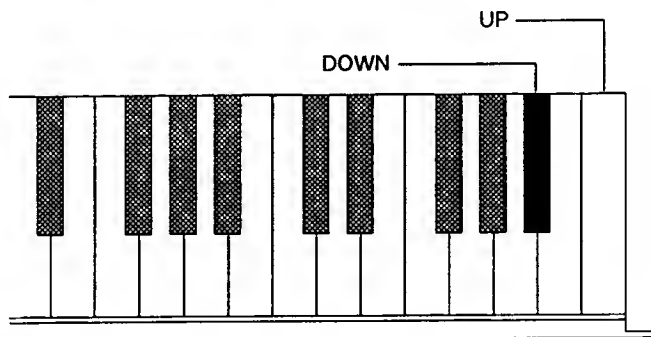


**Step 3** Unlike the other functions in the programming mode, this one produces sound so that you can compare the piano's pitch with another instrument.

**Note**

*Playing the keyboard when set up this way produces the tone selected before entering the programming mode. Tuning is done using this tone. If you want to change the tone, leave the programming mode, select the new tone and repeat steps (1) and (2).*

**Step 4** Press the highest black key to lower the pitch.  
Or press the highest white one to raise it.  
It may be necessary to press these keys repeatedly to achieve proper tuning.



**Note**

*The range of tuning possible is  $\pm 50$  cents (100 cents = a half tone). Each push of the key will change the tuning 1.56 cents.*

**Step 5** Leave the programming mode by pressing the **CHORUS** button.

**Note**

*Momentarily turning off the power restores the original pitch.*

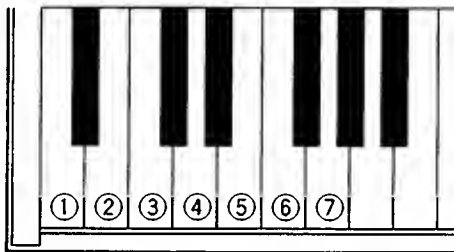
## 4 Temperaments

Your Kawai digital piano offers not only equal temperament (the modern standard) but also immediate access to those popular during the Renaissance and Baroque periods.

**Step 1** Make sure that the piano is in the programming mode.

**Step 2** Press the **CHURCH ORGAN** button (**HARPSICHORD** on the CA440) so that it flashes to indicate that the piano is waiting for a temperament specification.

**Step 3** Press one of the seven white keys at the lower end of the keyboard to select one of these corresponding temperaments.



- ① Equal temperament without the tuning curve
- ② Mersenne pure temperament
- ③ Pythagorean temperament
- ④ Meantone temperament
- ⑤ Werckmeister III temperament
- ⑥ Kirnberger III temperament
- ⑦ Equal temperament with the tuning curve

Key set function is also available at this point. As you know, limitless modulation of the key became available only after the invention of Equal temperament. When we use a temperament other than Equal temperament, we must carefully choose the key signature to play in.

To select the key signature setting, simply press one of the keys other than the lowest seven keys used to select the type of temperament. For example, if the song you are going to play is written in D major, press D key to set the keys.

Please note that this will only change the "balance" of the tuning, and the pitch of the keyboard will remain unchanged. Use the TRANSPOSE control to change the pitch of the whole keyboard.

**Step 4** Leave the programming mode.

### Note

*When the power is first applied or reapplied after a short break, the piano returns to the modern standard (equal temperament with the tuning curve = #7).*

---

## ♣ Temperament characteristic

### ♣ Equal temperament

This, by far the most popular piano temperament, divides the scale into twelve equal semitones and has the advantage of producing the same chordal intervals in all twelve keys.

### ♣ Mersenne temperament

This temperament, which eliminates consonances for thirds and fifths, is still popular for choral music.

### ♣ Pythagorean temperament

This temperament, which uses mathematical ratios to eliminate consonances for fifths, has problems with chords, but produces very beautiful melodic lines.

### ♣ Meantone temperaments

This temperament, which uses a mean between a major and minor whole tone to eliminate consonances for thirds, was devised to eliminate the lack of consonances experienced with certain fifths for the Mersenne pure temperament. It produces chords that are more beautiful than those with the equal temperament.

### ♣ Werckmeister III temperament, Kirnberger III temperament

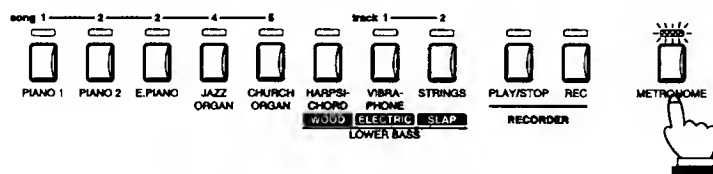
For key signatures with accidentals, this temperament produces the beautiful chords of the mean tone, but, as the accidentals increase, the tension increases, and the temperament produces the beautiful melodies of the Pythagorean temperament. It is used primarily for classical music written to take advantage of these characteristics.

## 5 Setting the metronome volume

The metronome volume is adjusted with the master volume. However the degree of volume change can be set.

**Step 1** Make sure that the piano is in the programming mode.

**Step 2** Press the **METRONOME** button.



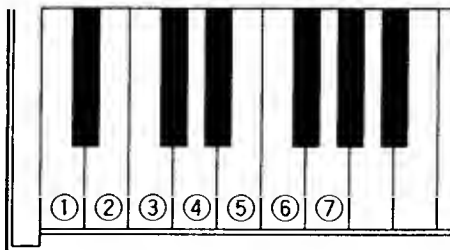
The metronome will sound in four-four time.

The **PIANO 1** LED will be turned off and in turn, the **METRONOME** LED will flash. Now you can start setting the metronome volume.

*In this state, pressing the keyboard keys will not produce sound.*

**Step 3** Set the degree of volume change for the metronome.

Use the seven white keys at the left end of the keyboard to set the degree of volume.



Volume is set to its lowest with the "1" key and at its highest with the "7" key. The "4" key is the factory setting.

**Step 4** Leave the programming mode.

# MIDI Interface

## 1 What's MIDI?

Before attempting to set the MIDI function, let's take a brief look at what MIDI is.

The letters MIDI stand for Musical Instrument Digital Interface, an international standard for connecting synthesizers, drum machines, and other electronic instruments so that they can exchange performance data.

Instruments equipped with MIDI have three jacks for exchanging data: IN, OUT, and THRU. Each uses a special cable with a DIN connector for connection.

IN : For receiving keyboard, timbre, and other data  
OUT : For sending keyboard, timbre, and other data  
THRU : For sending received data to another instrument without processing

Electronic musical instruments equipped with MIDI are able to transmit and receive performance data such as for note and timbre.

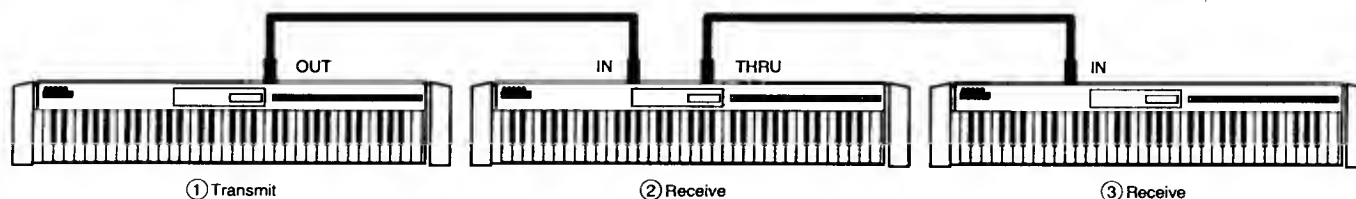
Depending on the connection method, instruments are grouped as those which receive data (producing sound according to data received from the connected instrument), those which send data (to the instruments to which they are connected), and those which both send and receive data.

The cable is connected to the MIDI IN jack of the instrument receiving data and to the OUT jack of the sending instrument. The THRU jack is used when the data received is to be sent to another instrument.

MIDI uses what are known as "channels" as a means of transmitting data for playing a specified instrument.

There are two types of channels, one for receiving and one for sending, and MIDI instruments are normally equipped with both types. Receive channels are used when an instrument receives data from another instrument, and send channels are used for transmission to another instrument.

For instance, let's say that three instruments are connected for playing in this way:



Instrument ①, which is sending, transmits the send channel along with keyboard and other data to instruments ② and ③, which are receiving. This data is sent to instruments ② and ③, but the data will not be received unless the receive channel for these two instruments matches the send channel used by instrument ①.

There are 16 channels each (1 through 16) available for both sending and receiving.

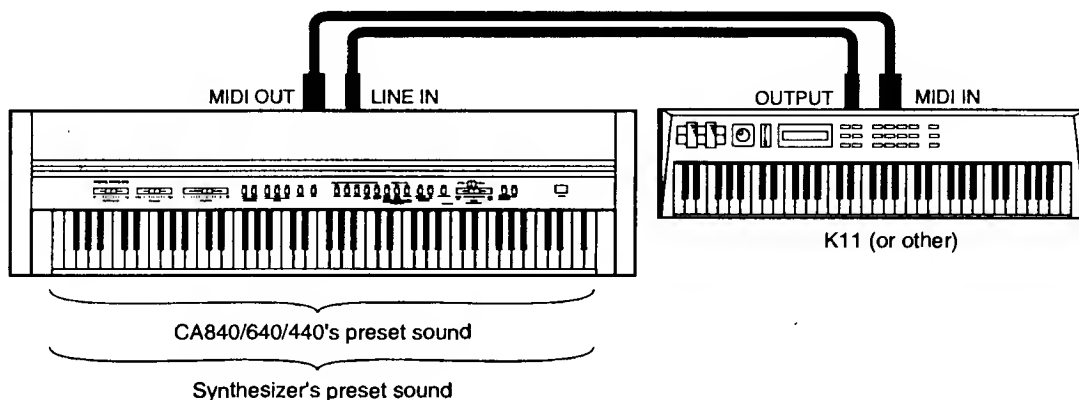


## 2

## Connections

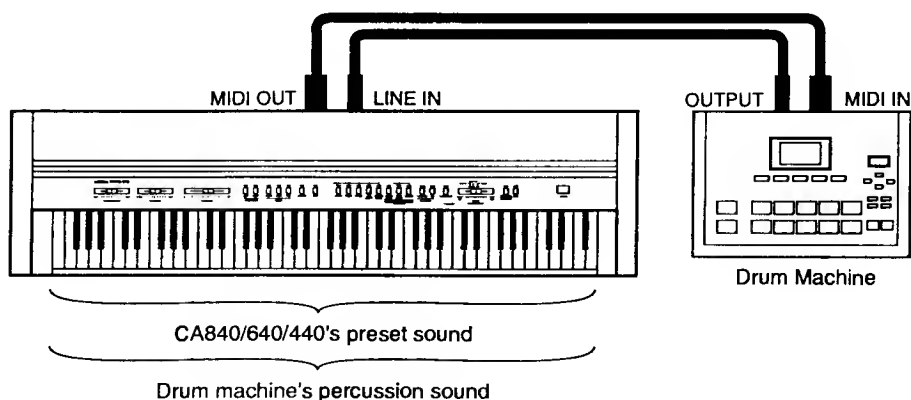
### (1) Connection to another MIDI-compatible keyboard

(connection with instruments such as the Kawai digital synthesizers KC20/K11)



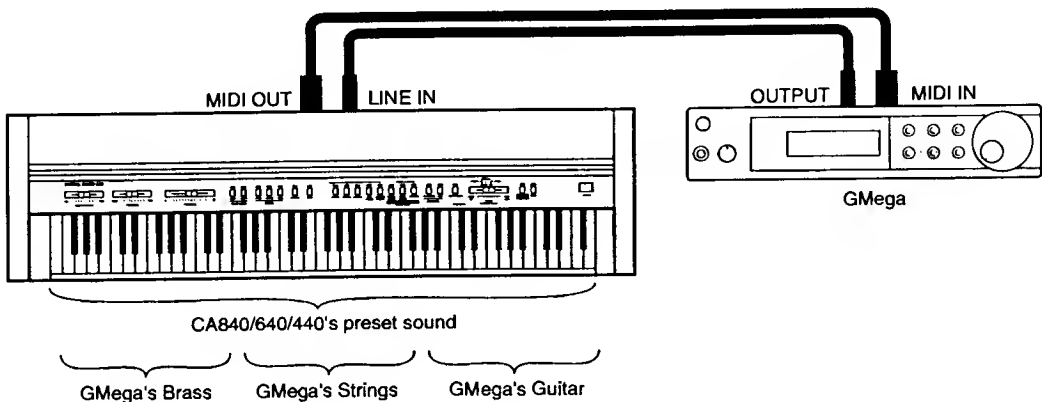
When connected as shown in the illustration, data on how the digital piano is played (what keys are struck and how hard) is sent to the synthesizer unchanged. Also, by connecting the synthesizer's OUTPUT jack and the LINE IN jack on the digital piano, the sound from the digital piano can be layered over the sound of the synthesizer. Since timbre can be set separately, you can assemble a wide variety of sound combinations, such as a PIANO tone from the digital piano layered with a STRING tone from the synthesizer for a thick sound.

### (2) Connection to a drum machine



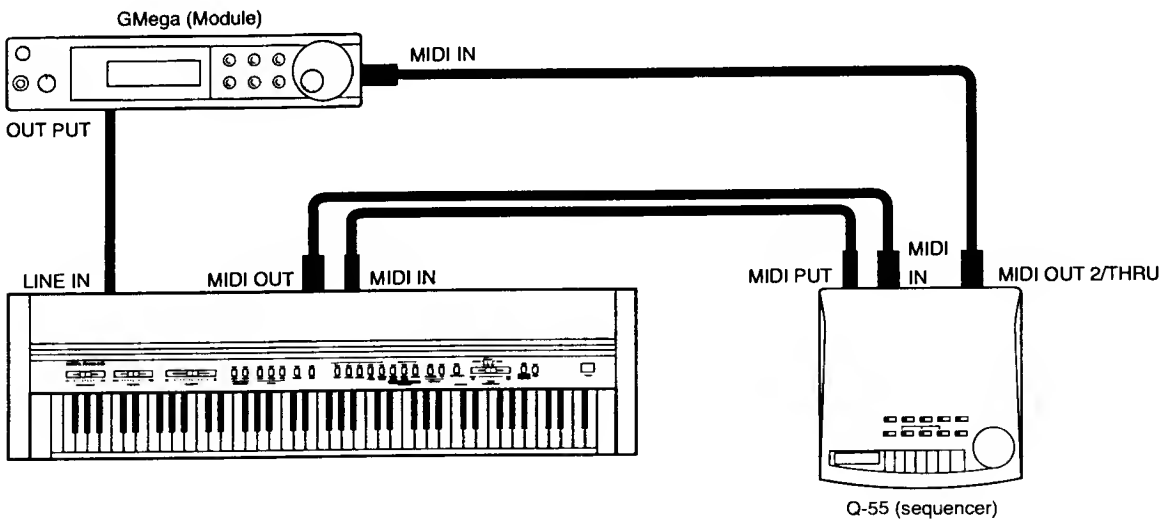
When connected as shown in the illustration, you can not only play along with the rhythm from the drum machine, you can also play the drum machine by striking the keys on the digital piano.

**(3) Connection to a sound generator module**  
(connection with instruments such as the Kawai GMega)



When connected as shown in the illustration, you can layer sounds like in example (1), as well as playing a large number of tones.

**(4) Connection to a sequencer and sound generator module**  
(connection with instruments such as the Kawai Q-55/GMega)



When connected as shown in the illustration, you can record songs played on the digital piano with the sequencer and play them back as many times as you like, and layer the module's tones made with the digital piano's MULTI TIMBRE function to assemble a complex automatic performance.

## 3 MIDI Implementation

---

The MIDI interface on your Kawai Digital Piano allows you to:

1. Receive and transmit keyboard data.

You can play the digital piano to output sound on a synthesizer or other instrument, or vice versa.

2. Set channel numbers for sending and receiving.

You can set send or receive channels to any number from 1 to 16.

3. Receive and transmit program numbers (codes for changing timbres).

You can operate the digital piano to change the programmed timbre of a synthesizer or other instrument connected with the MIDI interface to the digital piano, or vice versa.

4. Receive and transmit pedal data.

You can receive and transmit ON/OFF data for the soft and damper pedals.

5. Receive volume data.

You can control the volume of the digital piano from an external source connected via the MIDI interface.

6. Set MULTI TIMBRE.

When the digital piano is used as a receiving instrument, you can receive keyboard data on a number of different channels, producing different timbres for each one.

7. Sending and Receiving Exclusive data

Setting in the Programming Mode or Panel buttons operations, such as **DUAL**, or **CHORUS** buttons ON/OFF, can be sent as MIDI exclusive data.

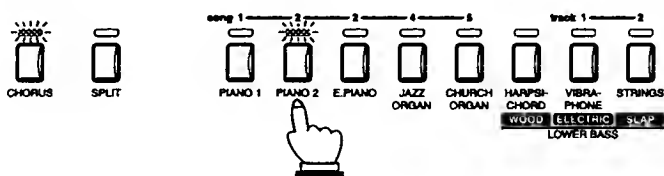
★ **For details of the MIDI function of this instrument, please refer to the MIDI Implementation Chart.**

## A. Setting the channel

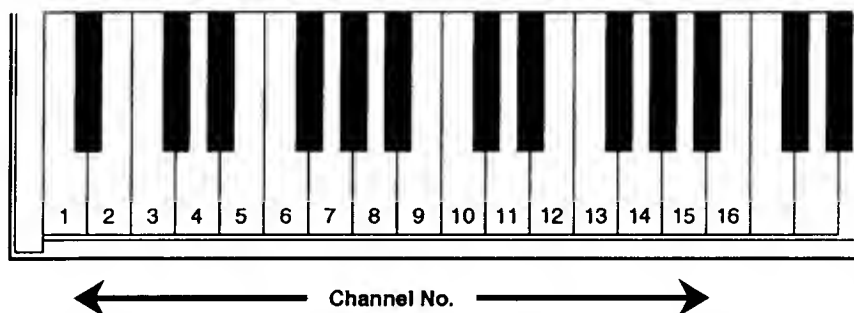
In order to be able to exchange information with a connected MIDI instrument, you must first set the interconnected instruments to the same channel.

**Step 1** Make sure that the digital piano is in the programming mode.

**Step 2** Press the **PIANO 2** button so that it flashes to indicate that the piano is waiting for a channel specification.  
(It is also possible to turn the MULTI TIMBRE function on and off. See following section.)



**Step 3** Select the channel by pressing the one of the first 16 white keys at the lower end of the keyboard.



**Step 4** Pressing one of these keys automatically sets the instrument's transmitting and receiving channel to the number selected.

**Step 5** Leave the programming mode.

### Note

*When the power is first applied, the piano uses Channel 1 and has the OMNI parameter on. Changing to another channel automatically turns the OMNI parameter off. In OMNI mode, information from all channels is received.*

## B. Sending program number (timbre code) and MIDI exclusive data

### (a) Transmitting with the TONE SELECTORs

You can use the eight **TONE SELECTORs** during normal playing to transmit program number 0 through 7 shown in the chart below.

Tone Selector	Program No.
PIANO 1	0
PIANO 2	1
E. PIANO	2
JAZZ ORGAN*	3*
CHURCH ORGAN	4
HARPSICHORD	5
VIBRAPHONE	6
STRINGS	7

\* CA840 and  
CA640 only

The digital piano is also able to transmit information on **TOUCH CURVE**, **SPLIT**, and **Effects (CHORUS, REVERB)** operation statuses as MIDI exclusive data.

Transmission of a program number and MIDI exclusive data can be switched on and off as described below.

#### Step 1

Enter the programming mode.

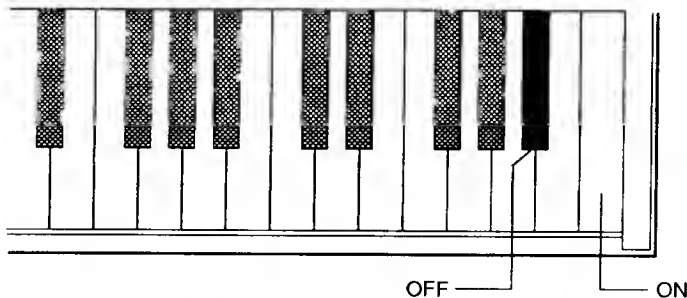
The LEDs for **CHORUS** and **PIANO 1** will flash. The flashing of the **PIANO 1** LED shows that the instrument is in the programming mode for transmitting the program number, so move on to the next step.

#### Note

**No sound will be played if the keyboard is pressed at this time.**

#### Step 2

Press the highest black or white key.



Pressing the black key (OFF) disables transmission of the program number and MIDI exclusive data. Pressing the white key (ON) enables it.

**Step 3** Press the **CHORUS** button to leave the programming mode.  
You may then change to another programming mode.

**Note**

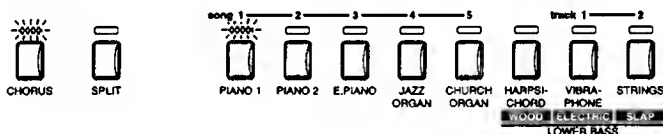
★ *The setting described above is automatically set on when the power is turned on, so you can also turn on the setting simply by turning the power off and then on again, instead of using the procedure described above.*

★ *In Dual/Split modes, tone data is not sent as MIDI standardized "Program Number" but, as Kawai's unique "Exclusive data".*

**(b) Using black keys**

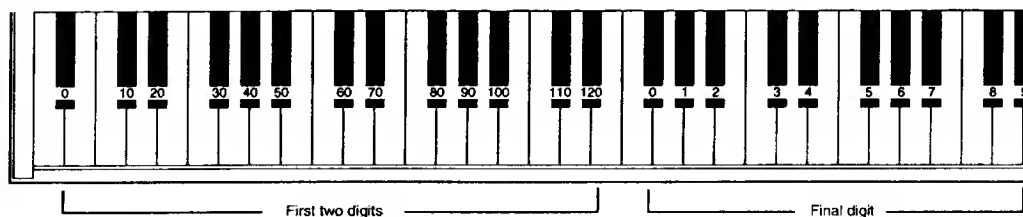
In addition to transmission with the **TONE SELECTORs**, you can also use the black keys on the instrument to send program numbers 0 through 127.

**Step 1** Make sure that the digital piano is in the programming mode.  
The flashing LED of the **PIANO 1** button indicates that the piano is ready to transmit a program number.



**Step 2** Select the program number by pressing the corresponding pair of black keys at the lower end of the keyboard.

There are a total of 128 numbers possible: the first thirteen black keys give the first and second digits ("00" - "12") of this three digit numbers; the next ten, the final digit ("0" - "9").



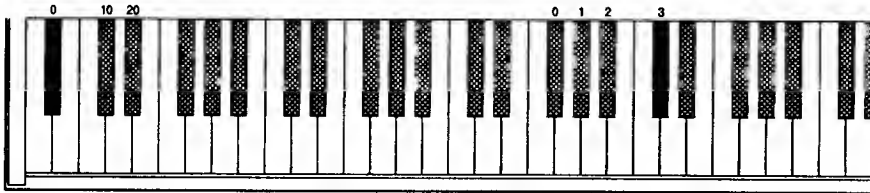
**Note**

*You must press the two keys in order from left to right.*

---

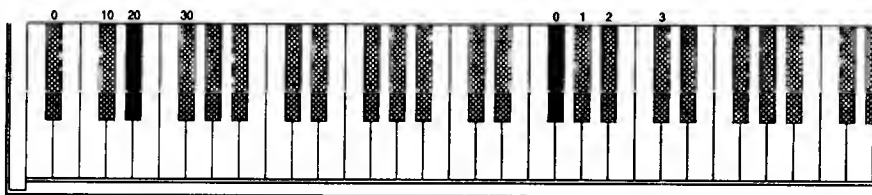
• Example

• Program No. 3



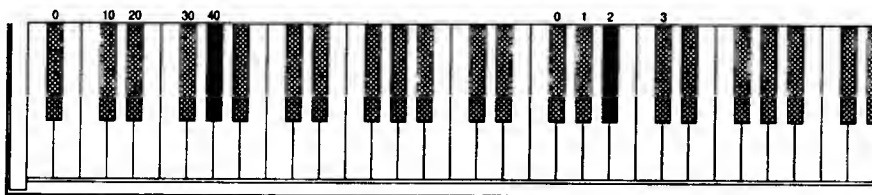
- Press the "0" key and then the "3" key.

• Program No. 20



- Press the "20" key and then the "0" key.

• Program No. 42



- Press the "40" key and then the "2" key.

**Note**

- ★ When transmitting a program number that has the same tens digit as the number being sent (such as, for instance, transmitting 33 after sending 31), you don't need to press the tens digit. The number can be transmitted simply by pressing the ones digit.
- ★ The tens digit is set at "0" when the programming mode is entered.

**Step 3**

Leave the programming mode.

## C. Turning MULTI TIMBRE on and off

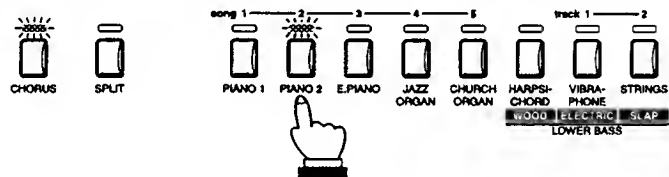
Normally, the procedure described above is used to transmit or receive data on a set MIDI channel (any one of 1 through 16), but by turning the MULTI TIMBRE function on you can receive more than one MIDI channel and simultaneously play a different type of timbre on each one. With this feature, you can use a sequencer such as the Kawai Q-80EX/Q-55 to assemble performances with a number of timbres (MULTI TIMBRE) on the digital piano.

There are two parameters to which the MULTI TIMBRE mode can be set. MULTI TIMBRE 1 produces the preset sound directly corresponding to the channel of the MIDI signal received. MULTI TIMBRE 2 lets you set which sound will be on or off for each channel of signal received.

- Step 1

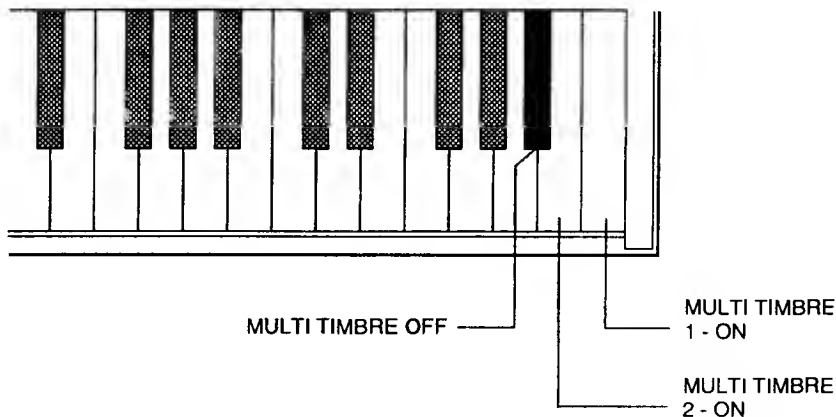
Make sure that the digital piano is in the programming mode.
- Step 2

Press the **PIANO 2** button to set the LED above the **PIANO 2** button flashing.



- Step 3

The white and black keys on the far right of the keyboard are used to turn the MULTI TIMBRE mode on and off.
- Pressing the white key on the extreme right turns on MULTI TIMBRE 1, the white key second from the extreme right turns on MULTI TIMBRE 2, and the black key turns off MULTI TIMBRE.



When MULTI TIMBRE is off and a MIDI signal is received, the preset sound currently selected will produce the sound.

When MULTI TIMBRE 1 is on, the preset sound that corresponds with the MIDI channel (shown on p. 37) will automatically produce the sound.

When MULTI TIMBRE 2 is on, you can select which sound will be on and off for each channel of reception.



---

When MIDI data is received while the MULTI TIMBRE function is off, it will be played according to whichever TONE SELECTOR is currently selected.

When the MULTI TIMBRE 1 mode is on, the received MIDI data will be played in the timbre corresponding to the MIDI channel shown in the chart below, regardless of the TONE SELECTOR currently in effect.

Channel	Timbre	Channel	Timbre
1	PIANO 1	9	E. PIANO 2
2	PIANO 2	10	Empty
3	E. PIANO	11	CLAVI
4	JAZZ ORGAN	12	PIPE ORGAN
5	CHURCH ORGAN	13	BELL
6	HARPSICHORD	14	WOOD BASS
7	VIBRAPHONE	15	ELECTRIC BASS
8	STRINGS	16	SLAP BASS

- ★ *The default setting for the MULTI TIMBRE mode ON/OFF when the keyboard's power is turned on is OFF.*
- ★ *When MULTI TIMBRE 1 or 2 is on, the preset sound for each channel of reception will play in full scale even if the SPLIT MODE is on. When sending signals, notes of the high register will be sent to the MIDI channels shown previously, and notes of the low register will be sent to the MIDI channel corresponding to that channel + 1.*

**Step 4** Leave the programming mode.

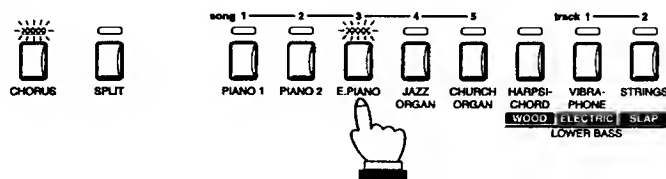
## D. Turning on and off individual sounds when using MULTI TIMBRE 2 mode

When MULTI TIMBRE 2 mode is on, use the following steps to turn on or off each sound.

**Step 1** Enter the programming mode.

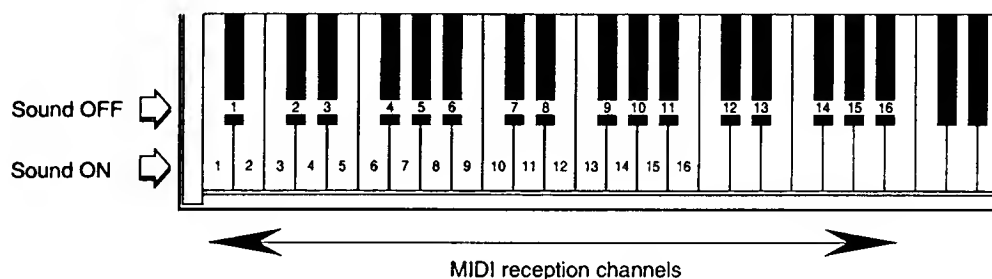
**Step 2** Press **E.PIANO** button.

The flashing LED will move from **PIANO 1** to **E.PIANO** indicating that the keyboard is in the programming mode for setting which sounds will be on and off, and turning local control on and off when using MULTI TIMBRE 2 mode.



### Step 3

Use the black and white keys at the left end of the keyboard to set the sound for each channel on or off.



Use the 16 white keys at the left end of the keyboard to set the channels to ON.  
Use the 16 black keys at the left end of the keyboard to set the channels to OFF.

### Step 4

Press **CHORUS** button to exit the programming mode.

### Note

★ The default setting in the **MULTI TIMBRE 2** mode, the sound for 2 to 10 channels is off.

★ In the **MULTI TIMBRE 2** mode, receiving the program change data for individual channels makes it possible to change the tone color which corresponds to the table given below.

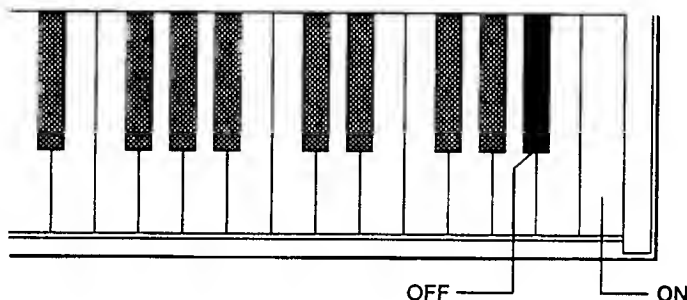
Program change number	Tone color	Program change number	Tone color	Program change number	Tone color
0	PIANO 1	6	VIBRAPHONE	12	WOOD BASS
1	PIANO 2	7	STRINGS	13	ELECTRIC BASS
2	E. PIANO	8	E. PIANO 2	14	SLAP BASS
3	JAZZ ORGAN	9	CLAVI	15~127	PIANO 1
4	CHURCH ORGAN	10	PIPE ORGAN		
5	HARPSICHORD	11	BELL		

## E. LOCAL CONTROL

This mode is used to set whether the sound from the piano's keyboard will be played or not, and is called the LOCAL CONTROL ON/OFF mode.

**Step 1** Make sure that the piano is in the programming mode.  
After turning off the **MULTI TIMBRE** mode, press the **E.PIANO** button.  
The flashing LED will change from **PIANO 2** to **E.PIANO**.

**Step 2** Press the highest white or black key to turn LOCAL CONTROL on or off.



White key (ON) : The piano will output sound when the keys are struck.  
Black key (OFF) : Sound will be output only when MIDI data is received, and not when the keyboard is played.

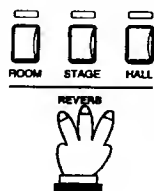
★ *You can also turn this on by turning the power off and then on again, instead of using the highest key as described above.*

**Step 3** Press the **CHORUS** button to leave the programming mode.

## F. One Touch Local Control OFF

The followings are a shortcut method to turn the Local Control OFF.

**Step 1** Turn the power switch on while holding down the 3 reverb buttons.



While holding down



POWER



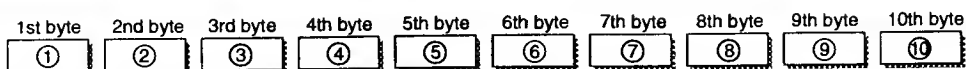
Power ON

Local control has been set to off.

# MIDI Exclusive Data Format

1

## Data format



- ① F0.....Start code
- ② 40.....Kawai's ID number
- ③ 00 - 0F.....MIDI channel
- ④ 10,30.....Function code (30 when setting MULTI TIMBRE 2 ON/OFF)
- ⑤ 04.....Indicates that the instrument is Electronic Piano
- ⑥ 02.....Indicates that the piano is one of "CA" series
- ⑦ data 1 } Exclusive data. Data 3 may not
- ⑧ data 2 } exist depending on the function
- ⑨ data 3 } (see below).
- ⑩ F7.....End code

2

## Data structure

data 1	data 2	data 3	Function
00	00	-	MULTI TIMBRE 1 OFF
01	00	-	MULTI TIMBRE 1 ON
02	00	-	MULTI TIMBRE 2 ON
0B	00/7F	-	CHORUS ON/OFF (7F ; ON, 00 ; OFF)
0E	00 - 03	-	data 2 =0 ; Reverb OFF data 2 =1 ~ 3 ; Reverb OFF 1 ~ 3 ON
0F	15 ~ 6C	-	Split point
14	00 ~ 7F	-	Dual/Split balance (40 ; center)
16	20 ~ 40 ~ 5F	-	Tuning (20 ; minimum, 40 ; center, 5F ; maximum)
17	00/7F	-	MIDI exclusive data transmission ON/OFF
18	00 ~ 02	-	Touch curve select (0 ; Light, 1 ; Normal, 2 ; Heavy)
20	00 ~ 07	00 ~ 07	Dual ON (data 2 ; Right tone, data 3 ; Left tone)
21	00 ~ 07	00 ~ 07, 00 ~ 12	Split ON (data 2 ; Upper tone, data 3 ; Lower tone)
25	00 ~ 06	00 ~ 0B	data 2 ; Temperament No., data 3 ; root key No.
26	00/7F	00 ~ 0F	data 2 ; MULTI TIMBRE 2 ON/OFF data 3 ; Channel



# Specifications

	CA840	CA640	CA440
Keyboard	88 Wooden (AWA-Grand)	88 Wooden (AWA)	88 Wooden (AWA)
Polyphony	32 ( 16 when using CHORUS )		
Preset Tones	Piano 1, Piano 2, Electric Piano, Jazz Organ, Church Organ, Harpsichord, Vibraphone, Strings, Wood Bass, Electric Bass, Slap Bass		Piano 1, Piano 2, Electric Piano, Church Organ, Harpsichord, Vibraphone, Strings
Effects	CHORUS, REVERB ( ROOM, STAGE, HALL )		
Temperaments	Equal Temperament, Mersenne pure Temperament, Pythagorian Temperament, Meantone Temperament, Werckmeister-III Temperament, Kirnberger-III Temperament		
Other Features	Concert Magic ( 88 Preset Songs ) Volume, Transpose, Tune, Touch Curve Selection ( Light, Normal, Heavy ) Dual, Split, Dual/Split Balance, Split Point Selection		Concert Magic (88 Preset Songs) Volume, Transpose, Tune, Touch Curve Selection (Light, Normal, Heavy) Dual, Dual Balance
Recorder	2Tracks, 5 Songs The total memory capacity of the recorder is approximately 5000 notes.		
Pedals	Sustain, Sostenuto, Soft		
Jacks	Headphone (2), LINEIN ( L, R ), LINE OUT ( L/MONO, R ), MIDI ( IN, OUT, THRU )		
Output Power	40W x 2	30W x 2	20W x 2
Speakers	16 cm x 2, 5 cm x 9 cm x 2	13 cm x 2, 5 cm x 9 cm x 2	16 cm x 2
Power Consumption	150W	130W	100W
Finish	Dark Wood Grain		
Dimensions	142 x 51 x 108 cm 56" x 20" x 42.5"	142 x 51 x 108 cm 56" x 20" x 42.5"	141 x 51 x 85 cm 55.5" x 20" x 33.5"
Weight (without bench)	67 kg, 146 lbs.	68 kg, 152 lbs.	58.5 kg, 130 lbs.

## Model CA840/640/440 MIDI Implementation Chart

Function		Transmitted	Recognized	Remarks
<b>Basic Channel</b>	Default	1	1	
	Changes	1 - 16	1 - 16	
<b>Mode</b>	Default	3	3	**The default for the OMNI mode is ON. Specifying MIDI channels automatically turns it OFF
	Messages Altered	×	1,3**	
		*****		
<b>Note Number</b>	Ture voice	21 - 108*	0 - 127	
		*****	15 - 113	
<b>Velocity</b>	Note ON	○ 9nH v=1-127	○	
	Note OFF	× 9nH v=0	×	
<b>After Touch</b>	Key's	×	×	
	Ch's	×	×	
<b>Pitch Bend</b>		×	×	
<b>Control Change</b>	7	×	○	Volume Damper pedal Sostenuto pedal Soft pedal
	64	○ (Right pedal)	○	
	66	○ (Middle pedal)	×	
	67	○ (Left pedal)	○	
<b>Program Change</b>		○ 0 - 127	○ 0 - 127***	
:Ture #		*****		
<b>System Exclusive</b>		○	○	ON/OFF Selectable
<b>Common</b>	:Song Position	×	×	
	:Song Select	×	×	
	:Tune	×	×	
<b>System Real Time</b>	:Clock	×	×	
	:Commands	×	×	
<b>Aux</b>	:Local ON/OFF	×	○	
	:All Notes OFF	×	○	
	:Active Sense	○	○	
	:Reset	×	×	
<b>Notes</b>		*15-113 The value depends on the TRANSPOSE setting. *** 8-127=0 (MULTI TIMBRE OFF/1) 15-127=0 (MULTI TIMBRE 2)		

Mode 1 : OMNI ON, POLY  
 Mode 3 : OMNI OFF, POLY

Mode 2 : OMNI ON, MONO  
 Mode 4 : OMNI OFF, MONO

○ : Yes  
 × : No



# **KAWAI**

Kawai Musical Instruments Manufacturing Co., Ltd.  
200 Terajima-cho, Hamamatsu, Japan

**OW309E (N)**

**Printed in Japan**